CLAIMS

1-27.   (Canceled)

28.   (Currently Amended) A method in a computer system for generating a new representation of a document, the document having a current representation that is based on a hierarchical model in which hierarchical relationships between elements are ~~as~~ defined by the model and non-hierarchical relationships between elements and content of elements are not defined by the model, the method comprising:

  identifying elements of the current representation that are to be items in the new representation;

  for each identified element, creating for the new representation an item corresponding to the identified element;

  for each created item, adding to the item that is a subject of a hierarchical relationship as indicated by the current representation a ~~link~~ relation to each item corresponding to an identified element that is an object of the hierarchical relationship as indicated by the current representation; and

  for non-hierarchical relationships between elements and content of elements as indicated by the current representation, adding to an item corresponding to the element that is the subject of the non-hierarchical relationship a ~~link~~ relation to the item corresponding to the content of the element that is the object of the non-hierarchical relationship

  wherein the created items and the added ~~links~~ relations form the new representation of the document, such that the new representation represents hierarchical and non-hierarchical relationships between items using ~~the same mechanism~~ an item, relation, attribute object model.

29.   (Previously Presented) The method of claim 28 wherein the hierarchical relationships are explicit and the non-hierarchical relationships are implicit.

30.   (Previously Presented)   The method of claim 28 wherein the hierarchical model is XML based.

31.   (Previously Presented)   The method of claim 30 wherein the hierarchical relationships are indicated by parent and child relationships of XML elements.

32.   (Previously Presented) The method of claim 30 wherein a non-hierarchical relationship is an attribute of an XML element that refers to another XML element.

33.   (Previously Presented) The method of claim 30 wherein a non-hierarchical relationship is a property of an XML element that refers to another XML element.

34.   (Previously Presented) The method of claim 30 wherein a non-hierarchical relationship is content of an XML element that refers to another XML element.

35.   (Previously Presented)   The method of claim 28 wherein the new representation is based on an item, relationship, and attribute model.

36.   (Currently Amended) A method in a computer system for generating a new representation of a document, the document having a current representation that is based on a hierarchical model in which hierarchical relationships between elements are defined by the model and non-hierarchical relationships between elements and content of elements are not defined by the model, the method comprising:

identifying elements of the current representation that are to be items in the new representation;

for hierarchical relationships between elements of the current representation, adding to an item corresponding to the element that is a subject of the hierarchical relationship a ~~link~~ relation to the item corresponding to the element that is an object of the hierarchical relationship;

for non-hierarchical relationships between elements and content of elements of the
as indicated by the current representation, adding to an item corresponding
to the element that is the subject of the non-hierarchical relationship a ~~link~~
<u>relation</u> to an item corresponding to the content of the element that is the
object of the non-hierarchical relationship; and

adding to items attributes of corresponding elements of the current representation
that do not indicate a relationship between elements,

such that the new representation represents hierarchical and non-hierarchical
relationships between items using ~~the same mechanism~~<u>an item, relation,
attribute object model</u>.

37.   (Previously Presented)   The method of claim 36 wherein the hierarchical
relationships are explicit and the non-hierarchical relationships are implicit in the document
and wherein the non-hierarchical relationships are explicit in the new representation of the
document.

38.   (Previously Presented)   The method of claim 36 wherein the hierarchical
model is XML based.

39.   (Previously Presented)   The method of claim 38 wherein the hierarchical
relationships are indicated by parent and child relationships of XML elements.

40.   (Previously Presented)   The method of claim 38 wherein a non-hierarchical
relationship is an attribute of an XML element that refers to another XML element.

41.   (Previously Presented)   The method of claim 38 wherein a non-hierarchical
relationship is a property of an XML element that refers to another XML element.

42.   (Previously Presented) The method of claim 38 wherein a non-hierarchical relationship is content of an XML element that refers to another XML element.

43.   (Previously Presented)   The method of claim 36 wherein the new representation of the document is based on an item, relationship, and attribute model.

44.   (Currently Amended) A computer-readable medium containing instructions for controlling a computer system to generate a new representation of a document, the document having a current representation based on an XML model in which hierarchical relationships between elements being are defined by the XML model and non-hierarchical relationships between elements and contents of elements are not being defined by the model, by a method comprising:

    identifying elements of the current representation that are to be items of the new representation;

    for hierarchical relationships between elements of the current representation, adding to an item corresponding to the element that is a subject of the hierarchical relationship a link relation to the item corresponding to the element that is an object of the hierarchical relationship; and

    for non-hierarchical relationships between elements and content of elements of the current representation, adding to an item corresponding to the element that is the subject of the non-hierarchical relationship a link relation to the item corresponding to the content of the element that is the object of the non-hierarchical relationship,

    such that the new representation represents hierarchical and non-hierarchical relationships between items using the same mechanism an item, relation, attribute object model.

45.   (Previously Presented) The computer-readable medium of claim 44 wherein the hierarchical relationships are explicit and the non-hierarchical relationships are implicit.

46.   (Previously Presented) The computer-readable medium of claim 44 wherein the hierarchical relationships are indicated by parent and child relationships of XML elements.

47.   (Previously Presented) The computer-readable medium of claim 44 wherein a non-hierarchical relationship is an attribute of an XML element that refers to another XML element.

48.   (Previously Presented) The computer-readable medium of claim 44 wherein a non-hierarchical relationship is a property of an XML element that refers to another XML element.

49.   (Previously Presented) The computer-readable medium of claim 44 wherein a non-hierarchical relationship is content of an XML element that refers to another XML element.

50.   (Previously Presented) The computer-readable medium of claim 44 wherein the new representation of the document is based on an item, relationship, and attribute model.